



STEVEN L. BESHEAR  
GOVERNOR

**ENERGY AND ENVIRONMENT CABINET**  
DEPARTMENT FOR ENVIRONMENTAL PROTECTION  
DIVISION OF WATER  
200 FAIR OAKS LANE  
FRANKFORT, KENTUCKY 40601  
[www.kentucky.gov](http://www.kentucky.gov)

LEONARD K. PETERS  
SECRETARY

## FACT SHEET

### General Permit for Pesticide Application

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**Permit Writer:** Ronnie Thompson

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#### Public Notice Information

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Information concerning the public notice process may be obtained on the Division of Water's Public Notice Webpage at the following address:

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Comments may be filed electronically at the following e-mail address: [DOWPublicNotice@ky.gov](mailto:DOWPublicNotice@ky.gov)

Or, by sending written comments to:

Division of Water  
Surface Water Permits Branch  
200 Fair Oaks Lane  
Frankfort, Kentucky 40601

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## **FACT SHEET**

# **KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT TO DISCHARGE INTO WATERS OF THE COMMONWEALTH GENERAL PERMIT FOR PESTICIDE APPLICATION**

## **1.0 BACKGROUND**

### **1.1 Introduction**

Pesticides were first regulated in the United States when Congress passed the Federal Insecticides Act in 1910. Because the sale of ineffective products was common at the time, the purpose was to try to protect farmers from fraudulent products and misleading claims. The law set manufacturing standards for insecticides and fungicides and provided for the seizure of adulterated substances. The number of agricultural pesticides grew, and in response to concern over their widespread use, Congress passed the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) in 1947. The law required all pesticides to be properly registered through the United States Department of Agriculture (USDA) and established guidelines for product labeling. The focus of pesticide regulation began to shift from protecting consumers to protecting public health and the environment when the effects of indiscriminate pesticide use came into question. The responsibility for regulating pesticides was given to The Environmental Protection Agency (EPA) when it was created in 1970. FIFRA was re-written in 1972 and EPA now regulates the sale, distribution and use of pesticides through the current law. EPA uses product labeling to ensure that pesticides will not pose an unreasonable risk to human health or the environment when used in accordance with the instructions. It is illegal under federal law to use a registered pesticide in a manner inconsistent with its labeling.

Over the past ten years, several courts have addressed the question of whether or not a National Pollutant Discharge Elimination System (NPDES) permit is required by the Clean Water Act (CWA) to apply pesticides. The cases have had conflicting outcomes as to whether or not pesticides are considered pollutants and when a permit is actually required. On November 27, 2006, EPA issued a final rule clarifying that an NPDES permit is not required when pesticides are applied directly to or over water, providing that the application is consistent with FIFRA requirements. The rule became effective on January 6, 2007. However, environmental and industry interest groups quickly challenged the rule. On January 7, 2009, the U.S. Sixth Circuit Court of Appeals vacated the EPA rule in *National Cotton Council of America v. EPA*, stating it was not a reasonable interpretation of the CWA. The court held that biological pesticides and chemical pesticides that leave a residue fall within the CWA definition of "pollutant" and an NPDES permit is required for the discharge of either of these pollutants if discharged from a point source for which NPDES permits are required. However, the court did not define what constitutes a pesticide residual. EPA assumes that all chemical pesticides will in fact leave a residue once the product has performed its intended purpose and that any means of application constitutes a point source, such as the discharge from the nozzle of a spray system.

The court later issued a two-year stay until April 2011 at the request of EPA, after which NPDES permits will be required for discharges to waters of the United States of biological pesticides and chemical pesticides that leave a residue. On November 2, 2009, the U.S. Supreme Court was petitioned to review the Sixth Circuit Court decision. The Supreme Court denied the request to hear the case, which left the April 2011 date to require NPDES permits unchanged. On March 28, 2011, a motion filed by EPA to stay the mandate until October 31, 2011 was granted by the Sixth Circuit Court of Appeals. NPDES permits are required as of this new date for discharges related to pesticides.

States delegated by EPA to implement the provisions of the CWA must develop the appropriate permits that satisfy the regulatory requirements of the NPDES program and that adequately protect water quality. Therefore, the Kentucky DOW is issuing a Kentucky Pollutant Discharge Elimination System (KPDES) general permit that authorizes the discharge of pollutants occurring from applying liquid pesticides under circumstances that make contact with surface water either intentional or unavoidable. A general permit is being issued because it is appropriate when multiple operations within a specific industry perform similar activities that can be addressed by a single set of permit conditions.

This permit regulates discharges from using liquid pesticides in general terms. It does not include any requirements that apply to a specific pesticide, a particular pesticide product, or a certain pollutant. This permit does not address terrestrial pesticide applications made to control pests on agricultural crops. This permit does not address other terrestrial pesticide applications unless there is an unavoidable discharge to surface water due to proximity. Applications to grounds where no surface water exists, including applications to temporarily dry intermittent streams and ditches do not constitute a point source discharge. This permit does not address the issue of off target spray drift.

Granular, powdered or other dry pesticides are not considered liquid or waterborne industrial waste and are therefore not required to obtain a wastewater discharge permit under the KPDES program, unless mixed with water or some other liquid before application. This permit does not address pesticide applications made with foggers. Because cold and thermal foggers produce a suspended mist and not a measurable liquid flow, applications of this type do not constitute a point source discharge. Storm water runoff from agricultural land, silviculture activities, orchards, cultivated crops, pastures, rangelands, forestlands and irrigation return flows are also exempt from coverage, even if the discharge is known to contain pesticides. In 1987, Congress amended the CWA to exempt these types of discharges from NPDES permitting requirements.

Because the date after which discharges related to pesticides are legally required to be permitted has passed, coverage under this permit will be automatic. That means coverage is available without a permit application and approval process. As such, an operator is authorized to discharge under the terms and conditions of this permit without notifying the DOW or receiving correspondence from the DOW. Any pesticide user must comply with all applicable FIFRA requirements, regardless of coverage under this permit. This permit includes additional requirements that do not contradict FIFRA requirements.

## 1.2 Selected Definitions

**Action Threshold** is the point at which pest control action must be taken because pest populations, or environmental conditions caused by pest populations, can no longer be tolerated. The action threshold can vary by pest, location, and season. Often, the action threshold is expressed as the number of pests per unit area. The action threshold can also represent a zero or near zero tolerance level.

**Active Ingredient** means the component of a pesticide meant to prevent, destroy, repel or mitigate a pest, or that functions as a plant regulator, desiccant or defoliant. The term generally refers to all but the inert portion of a pesticide.

**Agricultural Land** is distinctive land that is cultivated and specifically used for the production of crops or any other plant produced commodity.

**Antidegradation** is a policy developed and adopted as part of the state's water quality standards that ensures protection of existing water uses and maintains the existing level of water quality where that water quality exceeds levels necessary to protect both fish and wildlife propagation and recreation in and on the water.

**Application** or applying means the placing of a pesticide for effect, including mixing, loading and transport.

**Applicator** refers to a person, group or organization that applies pesticides and is not involved with any of the functions of an operator. Any given facility cannot have an applicator without also having an operator.

**Best Management Practices** means a schedule of activities, prohibitions of certain practices, maintenance procedures and other management practices designed to prevent or reduce surface water pollution. The term also includes treatment requirements, operating procedures, and practices that control plant site runoff, spills or leaks, sludge or waste disposal, or drainage from raw material storage.

**Biological Pesticides** include microbial pesticides, biochemical pesticides and plant-incorporated protectants (PIPs). Microbial pesticides are pesticides that include a microbial agent intended for preventing, destroying, repelling or mitigating any pest or that is used as a plant regulator, defoliant or desiccant. A microbial agent is a eukaryotic microorganism, a prokaryotic microorganism or a parasitically replicating microscopic element and may include protozoa, algae, fungi, Eubacteria, Archaeobacteria and viruses. Biochemical pesticides are pesticides that are a naturally occurring substance, or structurally similar and functionally identical to a naturally occurring substance, that has a history of exposure to people and the environment, has demonstrated minimal toxicity, and has a non-toxic mode of action on target pests. PIPs are substances intended to be produced and used in a living plant or its produce and in the genetic material necessary to produce the substances. PIPs include any inert ingredients contained in the plant or its produce.

**Chemical Pesticides** are any pesticides not classified as biological pesticides. The definition includes phosphorus inactivation chemicals such as aluminum sulfate, if used as a pesticide or pesticide aid.

**Cold Water Aquatic Habitat** means surface water and associated substrate capable of supporting indigenous aquatic life or self-sustaining or reproducing trout populations on a year-round basis.

**Control Measures** include management practices, operating procedures, application techniques, storage methods, maintenance schedules or other steps taken to reduce or eliminate pesticide discharges.

**Declared Pest Emergency Situation** is an event defined by the public declaration of a pest emergency by a federal, state or local governmental agency. The public declaration of a pest emergency may be based upon significant risk to human health, substantial economic loss or the threat to an endangered species.

**Exceptional Water** is generally a unique water of the Commonwealth. The term may include waters that contain a fish community that is rated as “excellent” by the Index of Biotic Integrity; waters that contain a macro invertebrate community that is rated as “excellent” by the Macro invertebrate Bio-assessment Index; or waters that are in the Cabinet’s reference reach network. The term automatically includes any water identified as Outstanding State Resource Water.

**Facility** means an area in which an activity takes place, in this case the application of liquid pesticide, with a point source discharge that is subject to regulation under the KPDES program. It is the area under control of the operator.

**Habitat** is the place where a pest is usually found. It is the natural environment of a particular species of plant, animal or other type of organism. A species’ environment includes the water, land and air in which it lives or may be sustained.

**High Quality Water** means surface water not listed as Outstanding State Resource Water, Exceptional Water or as Impaired Water. This is therefore the default category for any surface water not assessed by the Cabinet.

**Impaired Water** means surface water that assessed by the Cabinet as not fully supporting one or more of its designated uses and has been listed in the latest approved Integrated Report to Congress.

**Inert Ingredient** is a substance or group of structurally similar substances, other than an active ingredient, that is intentionally included in a pesticide product. Inert ingredient also means any substance, such as a selectable marker, used to confirm or ensure the presence of the active ingredient, and includes the genetic material necessary for the production of the substance, if genetic material is intentionally introduced into a living plant in addition to the active ingredient.

**Large Operation** means any facility not meeting the qualifications of a small operation.

**Minimize** means to reduce and/or eliminate. As used in this permit, the term also means to maintain a minimum level without allowing an unnecessary increase.

**Operator** refers to a person, group or organization that provides financing for pesticide applications, that makes the decision to apply pesticides, that performs the activities that are necessary to ensure compliance with this permit or that has authority over those whom perform the activities that are necessary to ensure compliance with this permit. Any given facility must have an operator, but not necessarily an applicator, as an operator can also perform the function of an applicator.

**Outstanding State Resource Water** is generally a unique water of the Commonwealth. The term may include waters that are part of a relatively undisturbed watershed that can provide basic scientific data and possess outstanding water quality characteristics; waters that support a diverse or unique native aquatic flora or fauna; waters that provide exceptional aesthetic or ecological value; waters that are part of a unique geological or historical area; or waters that possess physical or chemical characteristics that provide an unusual aquatic habitat within a physiographic region. The term automatically includes waters identified under the Kentucky Wild Rivers Act, the Kentucky Nature Preserves Act, the Federal Wild and Scenic Rivers Act and waters that support endangered or threatened species.

**Permittee** is a term used to describe the permit holder. The term has the same meaning as “operator”, except that an operator is only a permittee while having coverage under this permit. Requirements made of permittees by this permit do not necessarily have to be carried out by the operator, but it is the ultimate responsibility of the permittee to ensure compliance with the requirements of this permit.

**Pest** means any unwanted organism. The term may include rodents, insects, weeds, spiders, snails, moss, algae, mussels or fungus. The target pest is that particular pest for which a pesticide is intended to work.

**Pest Management Area** is the region, zone or locale for which pest management activities are being conducted, such as a city, a watershed, a wildlife refuge or a county. A pest management area may include one or possibly many treatment areas.

**Pesticide** includes any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, and any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant, or any nitrogen stabilizer.

The term does not include:

- any article that is a “new animal drug” within the meaning of Section 201 of the Federal Food, Drug and Cosmetic Act (FFDCA) that has been determined by the Secretary of Health and Human Services not to be a new animal drug by a regulation establishing conditions of use for the article, or that is an animal feed within the meaning of Section 201 of the Act bearing or containing a new animal drug.
- liquid chemical sterilant products (including any sterilant or subordinate disinfectant claims on those products) for use on a critical or semi-critical device, as defined in the FFDCA. For purposes of the preceding sentence, the term “critical device” includes any device that is introduced directly into the human body, either into or in contact with the bloodstream or normally sterile areas of the body and the term “semi-critical device” includes any device that contacts intact mucous membranes, but that does not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body.

The term applies to insecticides, herbicides, fungicides, rodenticides, and various other substances used to control pests. The definition encompasses all uses of pesticides authorized under FIFRA, including uses authorized under Section 3 (registration of pesticides), Section 5 (experimental use permits), Section 18 (emergency exemptions), Section 24(c) (special local needs), and Section 25(b) (exemption of pesticides from FIFRA).

**Note:** Drugs used to control diseases of humans or animals (such as livestock and pets) are not considered pesticides; those drugs are regulated by the Food and Drug Administration. Fertilizers, nutrients, and other substances used to promote plant survival and health are not considered plant growth regulators and thus, are not pesticides. Biological control agents, except for certain microorganisms, are exempted from regulation as pesticides under FIFRA. (Biological control agents include beneficial predators such as birds or ladybugs that eat insect pests, parasitic wasps, fish, etc).

This permit uses the term “pesticide” when referring to a substance as applied. When referring to the portion of a substance with pesticidal qualities, the permit uses the term “active ingredient.”

**Pesticide Research and Development** refers to creative work undertaken on a systematic basis to gain new knowledge, and to use this new knowledge to develop new or improve products or procedures.

**Point Source** is any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft from which pollutants are or may be discharged. The term does not include return flows from irrigated agriculture or agricultural storm water runoff. As used in this permit, the term describes both stationary and mobile sources as “points.”

**Pollutant** means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water. In regards to pesticide use, a biological pesticide is considered a “biological material,” and any pesticide residue resulting from use of a chemical pesticide is considered a “chemical waste.”

**Sewage System** means individually or collectively those constructions or devices used for collecting, pumping, treating and disposing of liquid or waterborne sewage, industrial waste or other waste.

**Small Operation** refers to the activity of a private enterprise that does not exceed the Small Business Administration (SBA) size standards found in Title 13 of the Code of Federal Regulations (13 CFR), 13 CFR 121.201, or a local government that serves a population of 10,000 people or less. The DOW realizes that the SBA defines small as serving less than 50,000 persons, but has adopted EPA’s lower threshold of 10,000 persons.

**Surface water** means waters having well-defined banks and beds, either constantly or intermittently flowing; lakes and impounded waters; marshes and wetlands; and any subterranean waters flowing in well-defined channels and having a demonstrable hydrologic connection with the surface. Lagoons used for waste treatment and effluent ditches that are situated on property owned, leased, or under valid easement by a permitted discharger are not considered surface waters of the Commonwealth. As used in this permit, the term describes only those features where water is present at the time of the activity.

**Toxicity** is the property of a pesticide, or some other substance, that causes any adverse physiological effects on a living organism. Pesticides with this property are considered to be toxic.

**Treatment Area** means the area where pesticides are actually applied and any extended area where applied pesticides are present and are intended to act. If pesticides are applied at a single location, such as through a drip line into a canal for example, the treatment area is the entire area intentionally affected by the pesticide. The treatment area is usually a portion of a larger pest management area.

**Warm Water Aquatic Habitat** means surface water and associated substrate capable of supporting indigenous warm water aquatic life.

**Water Quality Related Adverse Incident** is an event when a person, domesticated animal, plant or any other non-target organism suffers an unexpected toxic or adverse effect because of contact with surface water that has been affected by the use of pesticides. Toxic or adverse effects may include distressed, lethargic, floating or dead fish and wilted or discolored vegetation. An unexpected toxic or adverse effect from using a pesticide that is not due to contact with surface water is an “adverse incident”, but is not related to water quality and is therefore not a water quality related incident.

**Water’s Edge** is the land sloping toward and immediately bordering surface water. Land application of pesticides to this area may result in unavoidable pesticide contact with surface water. The term is used in this permit to describe an area where due to its shape a linear annual treatment area threshold expressed in miles is used instead of an annual treatment area threshold expressed in acres.

### 1.3 Area of Coverage

This permit covers all facilities located wholly or in part within the Commonwealth of Kentucky.

### 1.4 Covered Facilities

Any facility with an eligible discharge shall have automatic coverage under this permit. All eligible discharges are authorized upon the effective date of this permit. All facilities with an eligible discharge shall abide by the terms and conditions of this permit upon the effective date. Facilities with ineligible discharges shall have an individual KPDES permit.

### 1.5 Eligible Discharges

All discharges created by applying liquid pesticides directly to surface water and all non-agricultural land applications where pesticide contact with surface water is either intentional or unavoidable, except those excluded discharges.

Eligible discharges may include: applying pesticides directly to surface water to manage aquatic animals or submersed, emerged or floating vegetation in the water; or applying pesticides over surface water to manage flying insects that breed and live in or close to water; or applying pesticides to a utility right-of-way or a forest canopy to manage invasive vegetation where surface water exists within the right-of-way or below the canopy.

Only those initial discharges to surface water due to the use of pesticides are required to have coverage under this permit. For instance, using pesticides to clear unwanted vegetation in a catch basin does not require permit coverage, even though storm water runoff may cause the catch basin to discharge pesticides to surface water during a rainfall. The same holds true for hatchery ponds, which may be drained to surface water.

### 1.6 Excluded Discharges

Discharges created by applying pesticides to agricultural land are excluded from coverage under this permit. However, this permit makes no judgment as to whether a KPDES permit may actually be required by the CWA.

The following discharges are excluded from coverage under this permit and must be authorized by an individual permit:

- Designated as Cold Water Aquatic Habitat (CAH) or as Outstanding State Resource Water (OSRW) as listed in 401 KAR 10:026, Section 5.
- Categorized as Outstanding National Resource Water (ONRW) or as Exceptional Water (EW) as listed in 401 KAR 10:030, Section 1.
- Listed in the most recent Integrated Report to Congress on Water Quality in Kentucky (303(d) and 305(b) report) as impaired for the specific pesticide being used, or any of its constituents. For instance, applying the pesticide copper sulfate to surface water impaired for either copper or sulfate would not be eligible because copper sulfate can degrade into these two substances.

Surface water designations and categorizations are available at:

<http://www.lrc.state.ky.us/kar/401/010/026.htm> and <http://www.lrc.state.ky.us/kar/401/010/030.htm>

The 303(d) and the 305(b) Integrated Reports to Congress are available at:

<http://water.ky.gov/waterquality/pages/integratedreports.aspx>

The DOW may exclude any discharge from coverage under this general permit if it determines that an individual permit would better address the discharge.

### 1.7 Receiving Waters

This permit authorizes discharges to surface water:

- Classified as Warmwater Aquatic Habitat (WAH), Primary/Secondary Contact Recreation (PCR/SCR) and Domestic Water Supply (DWS) as listed in 401 KAR 10:026, Section 5.
- Listed in the most recent Integrated Report to Congress on Water Quality in Kentucky (303(d) and 305(b) report) as impaired, if the impairment is not for the specific pesticide that is being used, or any of its constituents.
- Categorized as High Quality as listed in 401 KAR 10:030, Section 1, provided the discharge complies with the additional controls as specified in this permit.

### 1.8 Permitting Action

This is the first issuance of a KPDES general permit for discharges resulting from the use of pesticides.



## 2.0 PROPOSED TECHNOLOGY BASED EFFLUENT LIMITATIONS

Pursuant to Title 40 of the Code of Federal Regulation (40 CFR), 40 CFR 122.44(a)(1), as incorporated by 401 KAR 5:065, Section 2(4), each NPDES permit issued by a delegated state shall include conditions that meet technology based effluent limitations and standards. Those conditions shall be based on the effluent limitations and standards promulgated under Section 301 of the CWA, or on the new source performance standards promulgated under Section 306 of the CWA, or on effluent limitations determined on a case-by-case basis under Section 402(a)(1)(B) of the CWA, or on a combination of the three, in accordance with 40 CFR 125.3(c)(3).

40 CFR 125.3(a)(2), as incorporated by 401 KAR 5:080, Section 2, establishes the minimum level of control that must be imposed in permits issued under Section 402 of the CWA. Permits for discharges other than those from a Publicly Owned Treatment Works (POTW) shall contain the following technology based treatment requirements in accordance with the following statutory deadlines: the best practicable control technology currently available (BPT) for all pollutants by March 31, 1989; the best conventional pollutant control technology (BCT) for conventional pollutants by March 31, 1989 and the best available technology economically achievable (BAT) for toxic or non-conventional pollutants by March 31, 1989.

However, EPA has not promulgated an effluent limitation guideline (ELG) for discharges associated with the application of pesticides for any of these three treatment levels. When EPA-promulgated effluent limitations are inapplicable, permit limitations may be based on a case-by-case Best Professional Judgment (BPJ) interpretation in accordance with 40 CFR 125.3(c)(2). The permit writer shall consider the appropriate technology for the category or class of point sources of which the applicant is a member, based upon all available information and shall consider any unique factors relating to the applicant.

40 CFR 122.44(k)(2) allows for Best Management Practices (BMPs) to be used in lieu of numeric limitations when numeric limitations are infeasible. Biological pesticides use microbial agents, most commonly based on a strain of *Bacillus thuringiensis*. Biological materials of this nature do not contain conventional pollutants for which numeric limits could be established. In the case of discharges from chemical pesticides, the time at which a numeric effluent limitation would apply is not clear, since a residue only comes into existence at some point after the actual discharge. A sample of the pesticide mixture that was applied could not be measured against an effluent limitation, since the mixture would have been diluted to varying degrees by surface water before the limit would apply.

Therefore, only non-numeric effluent limitations will be used in this general permit in accordance with a BPJ evaluation of the eligible discharges listed in Section 1.4. In accordance with the CWA and 40 CFR 122.44(k), as incorporated by 401 KAR 5:065, Section 2(4), this general permit includes narrative conditions (BMP effluent limitations incorporated through certain control measures instead of numeric effluent limitations) to reduce both the quantity of pesticide discharges and the likelihood of unintentional pesticide discharges because numeric limitations are infeasible, and the practices are reasonably necessary to carry out the purposes and intent of the CWA.

### 2.1 Minimizing Pesticide Discharges

The following control measures shall be used to minimize pesticide discharges:

1. The permittee shall use no more than the necessary amount of pesticide, no more frequently than necessary to control the target pest and shall apply the pesticide in suitable weather conditions, in accordance with the label.
2. The permittee shall keep application equipment in proper operating condition by calibrating, cleaning and performing maintenance on a regular basis and by making repairs when necessary.

Before making the first pesticide application covered by this permit and once per calendar year afterwards (before making the first pesticide application for that calendar year) the permittee shall:

1. Determine the basis of the pest problem, such as impeded land or water uses like fishing and recreation, increased health risks and the propagation of disease or utility interference.
2. Analyze surveillance data from the previous year to help identify the cause of the problem, to determine if the problem is reoccurring or if there are new sources that are contributing to the problem. If data from the previous year for the specific pest management area is not available, older data or data from a similar location may be used.
3. Establish pest size or population density to serve as an action threshold.
4. Identify the current pest distribution and estimate the distribution potential without the use of pesticides.

5. Identify specific pest species to target and develop species-specific management strategies based on species development and behavior.
6. If applicable, identify flying insect breeding sites so that larva control programs can be implemented.
7. If applicable, identify factors causing or contributing to weed or algae problems such as excessive nutrients.
8. If applicable, identify factors causing or contributing to aquatic animal problems such as accidental introduction of exotic species.

Before making every pesticide application covered by this permit, the permittee shall:

1. Conduct surveillance to determine if the action threshold has been met.
2. Determine if the current climate would be able to support populations beyond the threshold and evaluate the method and timing of applying pesticides to reduce any possible affects on the environment and on non-target organisms.
3. Evaluate using pesticides against the most susceptible stage of pest development.

Control measures are required only to the extent that they are applicable to the type of pesticide product being used and its intended function. For example, pesticides are sometimes used as a preventative measure. When pre-emergent herbicides are used in order to prevent seed germination, action thresholds or surveillance data may not be relevant. If the discharges covered by this permit are due to the application of a pesticide that is being used solely for the purpose of research and development, then control measures only have to be implemented to the extent that they do not compromise research results.

Coverage under this permit does not relieve the permittee from the requirement to follow FIFRA labeling. If it is determined that a pesticide has been applied at a higher rate than specified by the manufacturer's directions, either through error or poorly calibrated equipment, then the permittee is in violation of this permit because pesticide discharges are not being minimized. The requirement to minimize pesticide discharges does not suggest that the permittee must use less than the recommended application rates specified by the product label.

## **2.2 Water Quality Related Adverse Incident Reporting**

In order to provide an opportunity for the Cabinet to respond, if necessary, this permit contains a notification requirement when the permittee become aware that a water quality related adverse incident has occurred.

The permittee shall provide a written account of a water quality related adverse incident caused by a liquid pesticide discharge to the appropriate DOW Regional Office as listed in Attachment A within thirty days of the incident. This requirement is in addition to the reporting requirements of FIFRA, Section 6(a)(2) and 40 CFR Part 159.

The report must contain the following information:

1. The name of the surface water affected and any changes in appearance such as color, sheen or clarity.
2. The name of the affected species and an estimate of the amount and size of any dead or distressed organisms.
3. The size of the affected area, such as stream distance, lake area or terrestrial acreage.
4. The name of the pesticide, application rate, application method, active ingredient and EPA registration number.
5. A habitat description and the circumstances under which the incident occurred.
6. An identification of what actions will be taken to correct, remedy, cleanup or otherwise address the incident and prevent the incident from reoccurring.
7. How and when the incident was discovered.
8. If biological tests or water sampling were conducted, provide a summary of the test results within thirty days of the results becoming available.

Reporting a water quality related adverse incident occurring to non-target pests that are similar in kind to the target pest is not required. For example, if a different species of fly is affected by the application of a pesticide intended for black flies only, then a report is not required.

Water quality related adverse incidents do not include those occurring to terrestrial organisms, unless the incident was caused by contact with surface water affected by a pesticide. For instance, brown vegetation caused by foliage having a direct contact with a pesticide is not considered a water quality related adverse incident, and a report is not required.

If a federally listed threatened or endangered species or its federally designated critical habitat is adversely affected by the use of a pesticide, then the permittee must immediately notify the U.S. Fish and Wildlife Service (FWS).

Additional information on federally listed threatened or endangered species and federally designated critical habitat is available at: [www.fws.gov](http://www.fws.gov)

### **2.3 Visual Inspections**

Although visual inspections may be subjective by nature, they can be used in a practical manner to determine compliance with this permit. Visual monitoring is required as a means of identifying instances of harmful impact to non-target organisms related to the use of pesticides in a given area.

The permittee shall:

1. Conduct visual inspections while applying pesticides for immediate and observable water quality related adverse incidents. This requirement only applies when visual inspections are possible. For instance, visual inspections may not be possible during nighttime applications or when the treatment area is inaccessible.
2. Conduct post-application visual inspections in and around the treatment area for observable water quality related adverse incidents. This requirement only applies if the operator performs surveillance or effectiveness checks as part of their normal pest management program.

### **2.4 Corrective Actions**

A corrective action requirement is included to help document and eliminate environmental problems associated with pesticide use and to promote compliance with permit requirements.

If any of the following situations occur, the permittee shall take specific actions to correct the situation and to prevent reoccurrence.

1. Failure to meet the technology based effluent limitations.
2. Pesticide applications are causing or contributing to an excursion of a narrative water quality standard.
3. Pesticide applications cause a water quality related adverse incident.

Corrective action shall be taken before the next pesticide application or otherwise as soon as possible. In addition, the process of considering and selecting discharge control measures must be evaluated for effectiveness. The permittee shall document any event that triggers a corrective action within thirty days of the event. The documentation must include a description of the event, the date the event took place, the date the permittee learned of the event and how the event was discovered. The permittee shall summarize any corrective actions taken, including date begun, date complete, or the anticipated completion date. The permittee shall document what measures are taken to prevent a reoccurrence of the event. The permittee shall maintain a copy of corrective actions at the operator's business address and shall make the records available upon request to Cabinet personnel.

### **2.5 Recordkeeping**

The permittee shall keep a record of those items identified in (a) through (j) of the recordkeeping requirements for agricultural pest control within the Kentucky Department of Agriculture administrative regulation, 302 KAR 27:020, Section 1(3). The permittee shall maintain a copy of records at the operator's business address and shall make the records available upon request to Cabinet personnel.

### **2.6 Activity Summary**

Permittees shall prepare a summary of activity for each calendar year. The summary shall contain the permittee name and the applicator name(s). The common name of any pesticide used during the year must be included, with the registration number(s), application method and quantity applied. The summary shall include a brief outline of any water quality related adverse incidents that occurred during the year and any corrective actions taken. The summary shall be completed by February 15 of each year. The permittee shall maintain a copy of the summary at the operator's business address and shall make the summary available upon request to Cabinet personnel.

### **3.0 PROPOSED WATER QUALITY BASED EFFLUENT LIMITATIONS**

#### **3.1 Applicable Water Quality Standards**

Pursuant to 40 CFR 122.44(d)(1), as incorporated by 401 KAR 5:065, Section 2(4), each NPDES permit issued by a delegated state shall include conditions that meet water quality standards and state requirements. Those conditions shall be in addition to or more stringent than an ELG promulgated under Sections 301, 304, 306, 307, 318 or 405 of the CWA when necessary to achieve water quality standards established under Section 303 of the CWA, including state narrative criteria for water quality. 40 CFR 122.44(d)(1)(i) stipulates that limitations must control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic) that the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard, including state narrative criteria for water quality.

The stated purpose of a pesticide is to control an unwanted organism. Biological pesticides have a non-toxic mode of action and by definition, discharges from their application will not have the reasonable potential to cause an excursion of a water quality standard. Chemical pesticides are toxic to the target species and it is possible that they contain substances that could degrade surface water. However, only after a chemical pesticide has completed its intended purpose is it considered a pollutant for which this KPDES permit is required. Therefore, it is not possible to determine if their application will have the reasonable potential to cause an excursion of a water quality standard since the actual residue typically cannot be measured. Attempting to establish a numeric water quality based effluent limitation for a particular pollutant based on some type of in-stream or surface water monitoring is difficult because the origin of elevated pollutant levels could not be traced back to the actual discharge. Therefore, only state narrative criteria for water quality apply to the discharges covered by this permit.

401 KAR 10:031, Section 2(1) establishes the minimum criteria that apply to all surface waters. This section states that surface waters shall not be aesthetically or otherwise degraded by substances that:

- Settle to form objectionable deposits
- Float as debris, scum, oil, or other matter to form a nuisance
- Produce objectionable color, odor, taste, or turbidity
- Injure, are chronically or acutely toxic to or produce adverse physiological or behavioral responses in humans, animals, fish, and other aquatic life
- Produce undesirable aquatic life or result in the dominance of nuisance species
- Cause fish flesh tainting

Any discharge that causes or contributes to an excursion of a narrative water quality standard is prohibited and is a violation of this permit.

#### **3.2 Antidegradation**

The CWA requires each State to develop an antidegradation policy and associated implementation procedures for the protection and maintenance of a water body's existing water quality. Kentucky's antidegradation policy is found in 401 KAR 10:029, Section 1. The antidegradation policy implementation methodology is contained in 401 KAR 10:030.

The purpose of 401 KAR 10:026 through 10:031 is to safeguard the surface waters of the Commonwealth for their designated uses, to prevent the creation of new pollution of these waters, and to abate existing pollution. Where the quality of surface water exceeds that necessary to support propagation of fish, shellfish, wildlife and recreation in and on the water, that quality shall be maintained and protected unless the Cabinet finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the Cabinet's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located.

The procedure for implementing antidegradation requirements in general permits is found in 401 KAR 10:030, Section 1(3)(b)2. The Cabinet may introduce permit conditions to satisfy antidegradation requirements and must describe in the Fact Sheet how the general permit complies with antidegradation requirements.

Regarding antidegradation and lowering water quality, the application of pesticides does not necessarily have a negative affect, depending on the specific pesticide that is being used. In some cases, the use of a pesticide improves

water quality. If a pesticide prevents the growth of algae for instance, the dissolved oxygen level of surface water will not be depleted by subsequent algae decay.

It has already been determined that any pesticide registered for use under the FIFRA will not pose a risk to the environment if used in accordance with its labeling. This permit requires pesticides to be used in accordance with their label through technology based effluent limitations. In addition, the discharges covered by this permit are inherently different from typical wastewater discharges. Pesticides are deliberately purchased and used with a beneficial intention. Most other discharge permits are issued as a means to dispose of an unwanted wastewater.

However, in an effort to further protect high quality waters the DOW has decided to include within this permit additional requirements that provide alternatives to the use of pesticides. In some instances, the need to use pesticides can be reduced or virtually eliminated by using alternative strategies for pest control. Therefore, operators of permitted facilities with a direct discharge into surface water categorized as high quality water shall investigate the possibility of using the following methods of pest control instead of using pesticides:

- **Mechanical Removal Method**

This option involves physically removing the pest from the area. Examples include pulling, mowing, cutting, burning and trapping. Appropriate best management practices have to be used to minimize any environmental disturbances caused by using this method.

- **Habitat Alteration Method**

This procedure consists of increasing pest mortality by altering the pest habitat to make it less suitable to produce and sustain the pest species. Alterations may include eliminating standing water to control mosquito breeding grounds or using pond dyes to inhibit algae growth.

- **Biological Control Method**

This technique makes use of organisms such as herbivores, predators, parasites and pathogens to combat pests. The mosquito fish (*Gambusia affinis*) feeds on mosquito larvae and is an example of using biological control as an alternative to using pesticides.

The permittee shall evaluate these options prior to each pesticide application covered by this permit, considering their impact on water quality, impact to non-target organisms, effectiveness and feasibility versus those of applying a pesticide. If practical, one or more of these alternatives shall be used instead of applying pesticides that lead to a discharge to high quality water. If an alternative method is successful in eradicating a pest, the permittee shall consider taking steps to prevent the pest species from being reintroduced into the pest management area. The implementation of these requirements shall be documented by the permittee in the Pesticide Discharge Management Plan (PDMP) and are in addition to the standard PDMP requirements that apply. If the permittee is not required to develop a PDMP, then the implementation of any alternative methods of pest control shall be documented and kept on file with the other records as required by the recordkeeping section of this permit.

These requirements clarify the DOW's expectation of permittees to meet all applicable antidegradation requirements. The specific goal of these requirements is to prevent any lowering of water quality of those surface waters categorized as high quality. In addition to protecting high quality waters, this permit also protects impaired waters because coverage under this permit is not available for discharges to waters impaired for the specific pesticide being used, or any of its constituents.

Therefore, the conditions of 401 KAR 10:029, Section 1 and 401 KAR 10:030, Section 1 have been satisfied by this permit action. If DOW determines that additional controls or requirements beyond those contained in this permit are necessary to meet antidegradation requirements, then the operator shall be required to obtain an individual permit.

#### 4.0 PDMP REQUIREMENT FOR LARGE OPERATORS

The DOW has adopted EPA's criteria for large and small designations to determine which permittees must develop a Pesticide Discharge Management Plan (PDMP). Therefore, the following requirements are applicable only to those facilities that meet the definition of a large operation.

The permittee shall develop and implement a PDMP for their facilities covered by this permit. The plan shall be complete at the time pesticide application commences. The permittee shall maintain a copy of the PDMP at the operator's business address and shall make the plan available upon request to Cabinet personnel. The plan may incorporate by reference any other documents that may also be used to comply with the requirements of this permit.

The plan shall include the following items:

- 1. Pesticide Discharge Management Team**

The plan shall list a qualified discharge management team, including each member's name, responsibility and contact information. The list must include the name of a person who performs each of these specific tasks: making pest management decisions, making pesticide applications, performing visual inspections, taking corrective actions, detecting or responding to a leak or spill and developing the PDMP. The team may include as many or as few members as necessary to fulfill the requirements of this permit.

If the pesticide applicator is unknown when the team is established, indicate when the applicator can be identified. Include any written agreements between the permittee and another operator or pesticide applicator that specify the separation of responsibilities regarding the requirements of this permit.

- 2. Pest Management Area Description**

The plan shall describe the management area in detail, including an explanation of the pest problem, an identification of the target pest, an explanation of the action thresholds and how they were determined, and the probable cause of the pest problem. If surveillance data from the previous year was not used to identify the cause of the pest problem, then include an explanation of how the cause was determined. If data from another location is used, as allowed by this permit, then explain how that data is relevant.

- 3. Pest Management Area Map**

The plan shall include a map (topographical, city, county or other appropriate map) of the management area and treatment area(s).

- 4. Discharge Control Measures Description**

The plan shall describe what control measures are being used to minimize pesticide discharges in accordance with permit requirements. The plan shall list the pesticide application frequency and rate and how they were determined. An evaluation of the affect the pesticide's active ingredients will have on the environment shall also be included. The plan must describe how weather data such as temperature, wind speed and rainfall is gathered, including an explanation of how that information is evaluated to determine if conditions are favorable for applying pesticides.

- 5. Water Quality Related Adverse Incident Procedures**

The plan shall contain procedures for identifying, documenting and responding to a water quality related adverse incident, including protocols for notifying the appropriate personnel, emergency response organizations and regulatory agencies.

- 6. Visual Inspection Scheduling and Procedures**

The plan shall include a schedule for when visual inspections will be conducted, including an explanation of the inspection procedures and protocols.

- 7. Spill Response Procedures**

The plan shall contain procedures for stopping, containing and cleaning up leaks or spills, including protocols for notifying the appropriate personnel, emergency response organizations and regulatory agencies. Individuals that may cause, detect or respond to a leak or spill must be trained in the correct spill response procedures and must have the necessary spill response equipment available to them.

- 8. PDMP Modifications**

The PDMP shall be modified when a change in the facility significantly alters the type, frequency or volume of pesticides discharged, or anytime the permittee takes corrective action. Modifications must be made within 90 days of the change or the corrective action.

## **9. Implementation of Antidegradation Requirements**

If alternative pest control methods are used because of the antidegradation requirements of this permit, then the plan shall contain a description of those methods.

Small operations and any facility making an application exclusively in response to a Declared Pest Emergency Situation are not required to develop a PDMP.

## **5.0 NOI REQUIREMENTS**

Coverage under this permit is automatic. This initial issuance of KYG990000, DOW has elected not to require the submission of a Notice of Intent (NOI) during this initial issuance due to a number of administrative factors. The requirement to submit an NOI shall be addressed in the reissued KYG990000.

## **6.0 AUTHORIZATION TO DISCHARGE**

Facilities with eligible discharges are automatically covered under this permit. Operators are thereby authorized to discharge under the terms and conditions of this permit upon its effective date.

## **7.0 SCHEDULE OF COMPLIANCE**

The permittee shall attain compliance with all requirements of this permit on the effective date of this permit. The requirements of this permit are not tied to submission of an NOI, and therefore must be met from the time discharges begin.

## **8.0 OTHER INFORMATION**

### **8.1 Permit Duration**

This permit has a five (5) year duration and will expire on the date indicated on the signature page. However, existing coverage under an expired general permit continues in effect in accordance with 40 CFR 122.6, as incorporated by 401 KAR 5:060, Section 2(4), until the DOW makes a determination on any proposal to reissue the permit.

### **8.2 Permit and Public Notice Information**

The draft permit, fact sheet and public notice are available on the DOW Public Notice web page and the Department of Environmental Protection's Pending Approvals Search web page at:

<http://water.ky.gov/Pages/PublicNotices.aspx>:

[http://dep.gateway.ky.gov/eSearch/Search\\_Pending\\_Approvals.aspx?Program=Wastewater&NumDaysDoc=30](http://dep.gateway.ky.gov/eSearch/Search_Pending_Approvals.aspx?Program=Wastewater&NumDaysDoc=30)

Comments may be filed electronically at the following e-mail address: [DOWPublicNotice@ky.gov](mailto:DOWPublicNotice@ky.gov)

Or, by sending written comments to:

Division of Water  
Surface Water Permits Branch  
200 Fair Oaks Lane  
Frankfort, Kentucky 40601

### **8.3 References and Cited Documents**

All material and documents referenced or cited in this fact sheet are parts of the permit information as described above and are readily available at the Division of Water Central Office. Information regarding these materials may be obtained from the Division of Water's Open Records Coordinator at (502) 564-3410 or by e-mail at [dowopenrecords@ky.gov](mailto:dowopenrecords@ky.gov).

### **8.4 Certification and License**

Pesticide applications must be made by individuals certified in a pesticide use category consistent with the type of application in accordance with Kentucky Department of Agriculture administrative regulation, 302 KAR 27:050. Individuals who sell, distribute or make recommendations for the use of certain pesticides must be licensed to do so in accordance with 302 KAR 27:030.

# KPDES



KENTUCKY POLLUTANT  
DISCHARGE ELIMINATION  
SYSTEM

## PERMIT

PERMIT NO.: KYG990000  
AI NO.: 35050

### AUTHORIZATION TO DISCHARGE UNDER THE KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

Pursuant to Authority in KRS 224,

facilities that meet the eligibility requirements of this general permit

**are authorized to discharge from operations located**

wholly or in part within the Commonwealth of Kentucky

**to receiving waters identified as**

any of the eligible surface waters of the Commonwealth that comprise the Mississippi and Ohio River basins and sub-basins, within the political and geographical boundaries of Kentucky

**in accordance with effluent limitations, monitoring requirements and other conditions set forth in this permit.**

This permit shall become effective on April 1, 2012.

This permit and the authorization to discharge shall expire at midnight, March 31, 2017.

March 30, 2012

**Date Signed**

A handwritten signature in black ink, appearing to read "S. L. Gruzesky", written over a horizontal line.

**Sandra L. Gruzesky, Director  
Division of Water**



## **1.0 COVERAGE UNDER THIS PERMIT**

### **1.1 Covered Facilities**

Any facility with an eligible discharge shall have automatic coverage under this permit. All eligible discharges are authorized upon the effective date of this permit. All facilities with an eligible discharge shall abide by the terms and conditions of this permit upon the effective date. Facilities with ineligible discharges shall have an individual KPDES permit.

### **1.2 Eligible Discharges**

All discharges created by applying liquid pesticides directly to surface water and all non-agricultural land applications where pesticide contact with surface water is either intentional or unavoidable, except those excluded discharges.

### **1.3 Excluded Discharges**

Discharges created by applying pesticides to agricultural land are excluded from coverage under this permit. However, this permit makes no judgment as to whether a KPDES permit may actually be required by the CWA.

The following discharges are excluded from coverage under this permit and must be authorized by an individual permit:

- Designated as Cold Water Aquatic Habitat (CAH) or as Outstanding State Resource Water (OSRW) as listed in 401 KAR 10:026, Section 5.
- Categorized as Outstanding National Resource Water (ONRW) or as Exceptional Water (EW) as listed in 401 KAR 10:030, Section 1.
- Listed in the most recent Integrated Report to Congress on Water Quality in Kentucky (303(d) and 305(b) report) as impaired for the specific pesticide being used, or any of its constituents. For instance, applying the pesticide copper sulfate to surface water impaired for either copper or sulfate would not be eligible because copper sulfate can degrade into these two substances.

### **1.4 Receiving Waters**

This permit authorizes discharges to surface water:

- Classified as Warmwater Aquatic Habitat (WAH), Primary/Secondary Contact Recreation (PCR/SCR) and Domestic Water Supply (DWS) as listed in 401 KAR 10:026, Section 5.
- Listed in the most recent Integrated Report to Congress on Water Quality in Kentucky (303(d) and 305(b) report) as impaired, if the impairment is not for the specific pesticide that is being applied, or any of its constituents.
- Categorized as High Quality as listed in 401 KAR 10:030, Section 1, provided the discharge complies with the additional controls as specified in this permit.

## **2.0 TECHNOLOGY BASED EFFLUENT LIMITATIONS**

### **2.1 Minimizing Pesticide Discharges**

The following control measures shall be used to minimize pesticide discharges:

- The permittee shall use no more than the necessary amount of pesticide, no more frequently than necessary to control the target pest and shall apply the pesticide in suitable weather conditions, in accordance with the label.
- The permittee shall keep application equipment in proper operating condition by calibrating, cleaning and performing maintenance on a regular basis and by making repairs when necessary.

Before making the first pesticide application covered by this permit and once per calendar year afterwards (before making the first pesticide application for that calendar year) the permittee shall:

- Determine the basis of the pest problem, such as impeded land or water uses like fishing and recreation, increased health risks and the propagation of disease or utility interference.
- Analyze surveillance data from the previous year to help identify the cause of the problem, to determine if the problem is reoccurring or if there are new sources that are contributing to the problem. If data from the previous

year for the specific pest management area is not available, older data or data from a similar location may be used.

- Establish pest size or population density to serve as an action threshold.
- Identify the current pest distribution and estimate the distribution potential without the use of pesticides.
- Identify specific pest species to target and develop species-specific management strategies based on species development and behavior.
- If applicable, identify flying insect breeding sites so that larva control programs can be implemented.
- If applicable, identify factors causing or contributing to weed or algae problems such as excessive nutrients.
- If applicable, identify factors causing or contributing to aquatic animal problems such as accidental introduction of exotic species.

Before making every pesticide application covered by this permit, the permittee shall:

- Conduct surveillance to determine if the action threshold has been met.
- Determine if the current climate would be able to support populations beyond the threshold and evaluate the method and timing of applying pesticides to reduce any possible affects on the environment and on non-target organisms.
- Evaluate using pesticides against the most susceptible stage of pest development.

## **2.2 Water Quality Related Adverse Incident Reporting**

The permittee shall provide a written account of a water quality related adverse incident caused by a liquid pesticide discharge to the appropriate DOW Regional Office as listed in Attachment A within thirty days of the incident. This requirement is in addition to the reporting requirements of FIFRA, Section 6(a)(2) and 40 CFR Part 159.

The report must contain the following information:

- The name of the surface water affected and any changes in appearance such as color, sheen or clarity.
- The name of the affected species and an estimate of the amount and size of any dead or distressed organisms.
- The size of the affected area, such as stream distance, lake area or terrestrial acreage.
- The name of the pesticide, application rate, application method, active ingredient and EPA registration number.
- A habitat description and the circumstances under which the incident occurred.
- An identification of what actions will be taken to correct, remedy, cleanup or otherwise address the incident and prevent the incident from reoccurring.
- How and when the incident was discovered.
- If biological tests or water sampling were conducted, provide a summary of the test results within thirty days of the results becoming available.

## **2.3 Visual Inspections**

The permittee shall:

- Conduct visual inspections while applying pesticides for immediate and observable water quality related adverse incidents. This requirement only applies when visual inspections are possible. For instance, visual inspections may not be possible during nighttime applications or when the treatment area is inaccessible.
- Conduct post-application visual inspections in and around the treatment area for observable water quality related adverse incidents. This requirement only applies if the operator performs surveillance or effectiveness checks as part of their normal pest management program.

## **2.4 Corrective Actions**

If any of the following situations occur, the permittee shall take specific actions to correct the situation and to prevent reoccurrence.

- Failure to meet the technology based effluent limitations.
- Pesticide applications are causing or contributing to an excursion of a narrative water quality standard.
- Pesticide applications cause a water quality related adverse incident.

Corrective action shall be taken before the next pesticide application or otherwise as soon as possible. The permittee shall document any event that triggers a corrective action within five days of the event. The documentation must include a description of the event, the date the event took place, the date the permittee learned of the event and how the event was discovered. The permittee shall summarize any corrective actions taken, including date begun, date complete, or the anticipated completion date. The permittee shall document what measures are taken to prevent a reoccurrence of the event. The permittee shall maintain a copy of corrective actions at the operator's business address and shall make the records available upon request to Cabinet personnel.

## **2.5 Recordkeeping**

The permittee shall keep a record of those items identified in (a) through (j) of the recordkeeping requirements for agricultural pest control within the Kentucky Department of Agriculture administrative regulation, 302 KAR 27:020, Section 1(3). The permittee shall maintain a copy of records at the operator's business address and shall make the records available upon request to Cabinet personnel.

## **2.6 Activity Summary**

Permittees shall prepare a summary of activity for each calendar year. The summary shall contain the permittee name and the applicator name(s). The common name of any pesticide used during the year must be included, with the registration number(s), application method and quantity applied. The summary shall include a brief outline of any water quality related adverse incidents that occurred during the year and any corrective actions taken. The summary shall be completed by February 15 of each year. The permittee shall maintain a copy of the summary at the operator's business address and shall make the summary available upon request to Cabinet personnel.

## **3.0 WATER QUALITY BASED EFFLUENT LIMITATIONS**

### **3.1 Applicable Water Quality Standards**

Surface waters shall not be aesthetically or otherwise degraded by substances that:

- Settle to form objectionable deposits
- Float as debris, scum, oil, or other matter to form a nuisance
- Produce objectionable color, odor, taste, or turbidity
- Injure, are chronically or acutely toxic to or produce adverse physiological or behavioral responses in humans, animals, fish, and other aquatic life
- Produce undesirable aquatic life or result in the dominance of nuisance species
- Cause fish flesh tainting

Any discharge that causes or contributes to an excursion of a narrative water quality standard is prohibited and is a violation of this permit.

### **3.2 Antidegradation**

Operators of permitted facilities with a direct discharge to surface water categorized as high quality water shall investigate the possibility of using the following alternative methods of pest control instead of using pesticides:

- **Mechanical Removal Method**

This option involves physically removing the pest from the area. Examples include pulling, mowing, cutting, burning and trapping. Appropriate best management practices have to be used to minimize any environmental disturbances caused by using this method.

- **Habitat Alteration Method**

This procedure consists of increasing pest mortality by altering the pest habitat to make it less suitable to produce and sustain the pest species. Alterations may include eliminating standing water to control mosquito breeding grounds or using pond dyes to inhibit algae growth.

- **Biological Control Method**

This technique makes use of organisms such as herbivores, predators, parasites and pathogens to combat pests. The mosquito fish (*Gambusia affinis*) feeds on mosquito larvae and is an example of using biological control as an alternative to using pesticides.

The permittee shall evaluate these options prior to each pesticide application covered by this permit, considering their impact on water quality, impact to non-target organisms, effectiveness and feasibility versus those of applying a pesticide. If practical, one or more of these alternatives shall be used instead of applying pesticides that lead to a discharge to high quality water. If an alternative method is successful in eradicating a pest, the permittee shall consider taking steps to prevent the pest species from being reintroduced into the pest management area. The implementation of these requirements shall be documented by the permittee in the PDMP and are in addition to the standard PDMP requirements that apply. If the permittee is not required to develop a PDMP, then the implementation of any alternative methods of pest control shall be documented and kept on file with the other records as required by the recordkeeping section of this permit.

If DOW determines that additional controls or requirements beyond those contained in this permit are necessary to meet antidegradation requirements, then the operator shall be required to obtain an individual permit.

#### **4.0 PDMP REQUIREMENT FOR LARGE OPERATORS**

The permittee shall develop and implement a PDMP for their facilities covered by this permit. The plan shall be complete at the time pesticide application commences. The permittee shall maintain a copy of the PDMP at the operator's business address and shall make the plan available upon request to Cabinet personnel. The plan may incorporate by reference any other documents that may also be used to comply with the requirements of this permit.

The plan shall include the following items:

- **Pesticide Discharge Management Team**

The plan shall list a qualified discharge management team, including the member's name, responsibility and contact information. The list must include the name of a person who performs each of these specific tasks: making pest management decisions, making pesticide applications, performing visual inspections, taking corrective actions, detecting or responding to a leak or spill and developing the PDMP. The team may include as many or as few members as necessary to fulfill the requirements of this permit.

If the pesticide applicator is unknown when the team is established, indicate when the applicator can be identified. Any written agreements between the permittee and another operator or pesticide applicator that specify the separation of responsibilities regarding the provisions of this permit must be included.

- **Pest Management Area Description**

The plan shall describe the management area in detail, including an explanation of the pest problem, an identification of the target pest, an explanation of the action thresholds and how they were determined and the probable cause of the pest problem. If surveillance data from the previous year was not used to identify the cause of the pest problem, then include an explanation of how the cause was determined. If data from another location is used, as allowed by this permit, then explain how that data is relevant.

- **Pest Management Area Map**

The plan shall include a map (topographical, city, county or other appropriate map) of the management area and treatment area(s).

- **Discharge Control Measures Description**

The plan shall describe what control measures are being used to minimize pesticide discharges in accordance with permit requirements. The plan shall list the pesticide application frequency and rate and how they were determined. An evaluation of the affect the pesticide's active ingredients will have on the environment shall also be included. The plan must describe how weather data such as temperature, wind speed and rainfall is gathered, including an explanation of how that information is evaluated to determine if conditions are favorable for applying pesticides.

- **Water Quality Related Adverse Incident Procedures**

The plan shall contain procedures for identifying, documenting and responding to a water quality related adverse incident, including protocols for notifying the appropriate personnel, emergency response organizations and regulatory agencies.

- **Visual Inspection Scheduling and Procedures**

The plan shall include a schedule for when visual inspections will be conducted, including an explanation of the inspection procedures and protocols.

- **Spill Response Procedures**

The plan shall contain procedures for stopping, containing and cleaning up leaks or spills, including protocols for notifying the appropriate personnel, emergency response organizations and regulatory agencies. Individuals that may cause, detect or respond to a leak or spill must be trained in the correct spill response procedures and must have the necessary spill response equipment available to them.

- **PDMP Modifications**

The PDMP shall be modified when a change in the facility significantly alters the type, frequency or volume of pesticides discharged, or anytime the permittee takes corrective action. Modifications must be made within 90 days of the change or the corrective action.

- **Implementation of Antidegradation Requirements**

If alternative pest control methods are used because of the antidegradation requirements of this permit, then the plan shall contain a description of those methods.

Small facilities and any facility making an application exclusively in response to a Declared Pest Emergency Situation are not required to develop a PDMP.

## **5.0 NOI REQUIREMENTS**

Coverage under this permit is automatic. This initial issuance of KYG990000, DOW has elected not to require the submission of a Notice of Intent (NOI) during this initial issuance due to a number of administrative factors. The requirement to submit an NOI shall be addressed in the reissued KYG990000.

## **6.0 OTHER REQUIREMENTS**

### **6.1 Reopener Clause**

In accordance with 401 KAR 5:070, Section 6(1) [40 CFR 122.62(a)(7)], a permit may be reopened for modification or revoked and reissued when required by the reopener conditions of 401 KAR 5:065, Section 2(4) [40 CFR 122.44(b)]. A permit shall be modified, or alternatively revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved in accordance with 401 KAR 5:050 through 5:080, if the effluent standard or limitation so issued or approved:

- Contains different conditions or is otherwise more stringent than any effluent limitation in the permit
- Controls any pollutant not limited in the permit

- This permit may be reopened to implement the findings of a reasonable potential analysis performed by the DOW. A permit shall be modified, or alternatively revoked and reissued, if the DOW determines surface waters are aesthetically or otherwise degraded by substances that:
  - Settle to form objectionable deposits
  - Float as debris, scum, oil, or other matter to form a nuisance
  - Produce objectionable color, odor, taste, or turbidity
  - Injure, are chronically or acutely toxic to or produce adverse physiological or behavioral responses in humans, animals, fish, and other aquatic life
  - Produce undesirable aquatic life or result in the dominance of nuisance species
  - Cause fish flesh tainting

## **6.2 Standard Conditions**

This permit has been issued under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits or licenses required by this Cabinet and other state, federal, and local agencies.

All conditions of 40 CFR 122.41 (401 KAR 5:065, Section 2(1)) are hereby incorporated by reference as conditions of this permit. For existing manufacturing, commercial, mining and silvicultural discharges the conditions of 40 CFR 122.42 (a) (401 KAR 5:065, Section (2)) are hereby incorporated as conditions of this permit.

## **6.3 Schedule of Compliance**

The permittee shall attain compliance with all requirements of this permit on the effective date of this permit. The requirements of this permit are not tied to submission of an NOI, and therefore must be met from the time an eligible operator begins discharging.

## Attachment A

<p>Bowling Green Regional Office 1508 Westen Avenue Bowling Green, Kentucky 42104 (270) 746-7475</p> <p>Allen Edmonson Logan Simpson Barren Grayson Ohio Warren Butler Hart</p>	<p>London Regional Office 875 South Main Street London, Kentucky 40741 (606) 330-2080</p> <p>Bell Jackson Leslie Rockcastle Clay Knox McCreary Whitley Harlan Laurel Owsley</p>
<p>Columbia Regional Office 2751 Campbellsville Road Columbia, Kentucky 42728 (270) 384-4734</p> <p>Adair Green Metcalfe Russell Boyle Larue Monroe Taylor Casey Lincoln Nelson Washington Clinton Marion Pulaski Wayne Cumberland</p>	<p>Louisville Regional Office 9116 Leesgate Road Louisville, Kentucky 40222-5084 (502) 429-7122</p> <p>Breckinridge Hardin Meade Shelby Bullitt Jefferson Oldham Spencer</p>
<p>Florence Regional Office 8020 Veterans Memorial Drive, Suite 110 Florence, Kentucky 41042 (859) 525-4923</p> <p>Boone Carroll Henry Pendleton Bracken Gallatin Kenton Trimble Campbell Grant Owen</p>	<p>Madisonville Regional Office Madisonville State Office Building 625 Hospital Drive Madisonville, Kentucky 42431-1683 (270) 824-7529</p> <p>Caldwell Daviess Hopkins Todd Christian Hancock McLean Union Crittenden Henderson Muhlenberg Webster</p>
<p>Frankfort Regional Office 200 Fair Oaks Lane, 3<sup>rd</sup> Floor Frankfort, Kentucky 40601 (502) 564-3358</p> <p>Anderson Fayette Jessamine Powell Bourbon Franklin Madison Scott Clark Garrard Mercer Woodford Estill Harrison Nicholas</p>	<p>Morehead Regional Office 525 Hecks Plaza Drive Morehead, Kentucky 40351 (606) 783-8655</p> <p>Bath Fleming Mason Morgan Boyd Greenup Meniffee Robertson Carter Lawrence Montgomery Rowan Elliott Lewis</p>
<p>Hazard Regional Office 233 Birch Street, Suite 1 Hazard, Kentucky 41701 (606) 435-6022</p> <p>Breathitt Knott Magoffin Pike Floyd Lee Martin Wolfe Johnson Letcher Perry</p>	<p>Paducah Regional Office 130 Eagle Nest Drive Paducah, Kentucky 42003 (270) 898-8468</p> <p>Ballard Fulton Livingston McCracken Calloway Graves Lyon Trigg Carlisle Hickman Marshall</p>



STEVEN L. BESHEAR  
GOVERNOR

**ENERGY AND ENVIRONMENT CABINET**  
**DEPARTMENT FOR ENVIRONMENTAL PROTECTION**  
DIVISION OF WATER  
200 FAIR OAKS LANE  
FRANKFORT, KENTUCKY 40601  
[www.kentucky.gov](http://www.kentucky.gov)

LEONARD K. PETERS  
SECRETARY

March 30, 2012

Re: Pesticides General Permit  
KPDES No.: KYG99000  
AI No.: 35050  
Pulaski County, Kentucky

Dear Commenter:

Your comments concerning the above-referenced draft permit have been reviewed and responses prepared in accordance with Kentucky Pollutant Discharge Elimination System (KPDES) regulation 401 KAR 5:075, Section 12. The comments have been briefly described below and our responses to the comments follow:

**COMMENT 1:** Because of legal responsibility issues with Clean Water Act compliance, several comments pertain to the thresholds for which coverage under the general permit is not required. Smaller operations should have the protection of permit coverage to avoid litigation.

**RESPONSE 1:** The draft permit has been revised to require coverage for all eligible facilities regardless of size of the treatment area.

**COMMENT 2:** The phrase "near surface water" is unclear and cannot be quantified. Are terrestrial treatments with a 50-foot setback from surface water exempt from coverage?

**RESPONSE 2:** The word "near" has been removed from the draft permit. Any terrestrial discharge is exempt unless the treatment causes an unavoidable discharge to surface water. The distance necessary to avoid a discharge to a surface varies depending on the type of pesticide being used, the application method, weather conditions, terrain and other factors.

**COMMENT 3:** How should large organizations divide themselves to create the correct number of permittees?

**RESPONSE 3:** This issue is largely up to the organization in question. The DOW recommends making no changes to the entity's pesticide decision-making structure.

**COMMENT 4:** The draft permit contains an overly broad requirement for the permittee to comply with water quality standards. This deprives the permittee of the reasonable expectation that if they fully comply with the terms and conditions of the permit they will not be subject to enforcement action for an unintended and unknown excursion of a water quality standard. The requirement should be deleted.



## RESPONSE TO COMMENTS

KPDES No.: KYG990000

AI No.: 35050

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- RESPONSE 4:** 40 CFR 122.44(d)(1) as incorporated by 401 KAR 5:065, Section 2(4), requires every KPDES permit to include conditions to meet state water quality standards.
- COMMENT 5:** Are powdered herbicides that must be mixed with water before application covered under this permit?
- RESPONSE 5:** Yes. Additional clarification has been added to the draft permit concerning this issue.
- COMMENT 6:** Are artificially controlled water bodies, such as catch basins or hatchery ponds covered under this permit? Do discharges to ephemeral streams require a permit?
- RESPONSE 6:** In most cases, no. Additional clarification has been added to the draft permit concerning this issue.
- COMMENT 7:** Utility providers are concerned about the height of woody vegetation in the right-of-way. Any effort to estimate pest density would be an unnecessary expense. Please add utility right-of-way maintenance as an example in Section 1.4.
- RESPONSE 7:** Pesticide use on a utility right-of-way has been added as an example of a type of eligible discharge.
- COMMENT 8:** The direct/indirect discharge designations are unclear and unworkable. The definition of "Indirect Discharge" is not reasonable.
- RESPONSE 8:** This concept has been removed from the permit. Any discharge to a special use water, now requires an individual permit.
- COMMENT 9:** The draft permit should expressly exclude agricultural pesticide applications.
- RESPONSE 9:** The statement regarding eligible discharge types has been revised to indicate that terrestrial applications are more specifically "non-agricultural land applications".
- COMMENT 10:** There is a concern that the requirement to minimize pesticide discharges means reducing levels to below what is allowed by FIFRA.
- RESPONSE 10:** Additional clarification has been added to the draft permit concerning this issue.

Any person aggrieved by the issuance of a permit final decision may demand a hearing pursuant to KRS 224.10-420(2) within thirty (30) days from the date of the issuance of this letter. Any demand for a hearing on the permit shall be filed in accordance with the procedures specified in KRS 224.10-420, 224.10-440, 224.10-470, and the regulations promulgated thereto. The request for hearing should be submitted in writing to the Energy and Environment Cabinet, Office of Administrative Hearings, 35-36 Fountain Place, Frankfort, Kentucky 40601 and the Commonwealth of Kentucky, Energy and Environment Cabinet, Division of Water, 200 Fair Oaks Lane, Frankfort, Kentucky 40601. For your record keeping purposes, it is recommended that these requests be sent by certified mail. The written request must conform to the appropriate statutes referenced above.

**RESPONSE TO COMMENTS**

KPDES No.: KYG990000

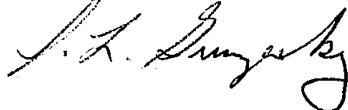
AI No.: 35050

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If you have any questions regarding this response, please contact Ronnie Thompson, Surface Water Permits Branch, at (502) 564-3410, extension 4925.

Further information on procedures and legal matters pertaining to the hearing request may be obtained by contacting the Office of Administrative Hearings at (502) 564-7312.

Sincerely,

A handwritten signature in black ink, appearing to read "S. L. Gruzesky", written in a cursive style.

Sandra L. Gruzesky, Director  
Division of Water

SLG:JMB:rt